

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002733**Date Inspected:** 29-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QAI) Bruce Berger arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QAI observed and/or discovered the following.

The Caltrans QAI observed welding utilizing the dual process WPS-B-T-2342-U1 (U-rib)-3 welding procedure specification (WPS) for closed rib welding of the Production Monitoring Test (PMT) #1 for Production Panel DP563-001 and DP588-001 on closed U-rib Partial Joint Penetration (PJP) welds in Bay #1. ZPMC welding personnel performed Gantry Machine, Gas Metal Arc Welding (GMAW) for the root pass and immediately performed Gantry Machine, Submerged Arc Welding (SAW) for the cover/final pass on PMT #1, using gantry machine #2. Upon completion of the SAW pass on U-rib PJP welds on PMT #1 Visual Testing (VT) was performed on weld #1 through #6 by QC and accepted then VT was verified by the Caltrans QAI. Ultrasonic Testing (UT) was then performed by ZPMC inspector and PMT #1 was determined to be acceptable. Macro etch samples were selected by the Caltrans QAI on PMT #1.

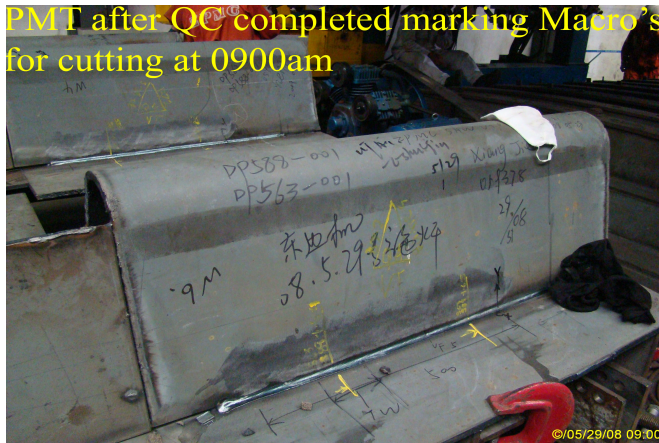
The Caltrans QAI observed ZPMC welders welding the GMAW roots on the following welds. For Deck Panel DP588-001 welder Xiang Jie, WID 059378 on 001, Xiang Huan Feng, WID 059416 on 002, Chen Jie, WID 059468 on 005 and Zhang Shuo Hui, WID 059403 on 006. On Deck Panel DP653-001 welder Xiang Jie, WID 059378 on 001, Xiang Huan Feng, WID 059416 on 002, Chen Jie, WID 059468 on 005, Zhang Shuo Hui, WID 059403 on 006., Jiang Ting Guang, WID 062265 on 009 and Gao Xin Dong, WID 059361 on 010. Essential welding variables recorded below.

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The Caltrans QAI performed magnetic particle testing (MT) on fillet weld joints DP557-001-056, 057 & 096 between the closed u-rib and diaphragm. All welds appeared to be in compliance with the special provisions and code. See Magnetic Particle Testing Report TL-6028 dated May 29, 2008 for results.

PMT after QC completed marking Macro's for cutting at 0900am



Deck Panel DP653-001 during GMAW root welding of closed rib to deck welds



Item	Weld Identification	Applicable WPS	CWI Name	Amperage	Voltage	TravelSpeed	Preheat Temp	Remarks
1	DP588-001-001	WPS-B-T-2342-U1	Chen Xi	368	30.2	535mm/min	47C	WID 039378
2	DP588-001-002	WPS-B_T-2342-U1	Chen Xi	371	30.0	535mm/min	47C	WID 059416
3	DP588-001-005	WPS-B-T-2342-U1	Cheng Xi	370	30.0	535mm/min	47C	WID 059468
4	DP588-001-006	WPS-B-T-2342-U1	Chen Xi	370	30.0	535mm/min	47C	WID 059403
5	DP653-001-001	WPS-B-T-2342-U1	Chen Xi	356	30.9	530mm/min	24C	WID 059378
6	DP653-001-002	WPS-B-T-2342-U1	Chen Xi	364	30.0	530mm/min	24C	WID 059416
7	DP653-001-005	WPS-B-T-2342-U1	Chen Xi	368	30.4	530mm/min	24C	WID 059468
8	DP653-001-006	WPS-B-T-2342-U1	Chen Xi	388	30.3	530mm/min	24C	WID 059403
9	DP653-001-009	WPS-B-T-2342-U1	Chen Xi	383	30.2	530mm/min	24C	WID 062265
10	DP653-001-010	WPS-B-T-2342-U1	Chen Xi	365	30.1	530mm/min	24C	WID 059361

Summary of Conversations:

No conversations held today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 858 344-2712, who represents the Office of Structural Materials for your project.

Inspected By: Berger, Bruce

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer